## REMARKS

The Office Action dated June 6, 2006 has been received and carefully noted. The above amendments to claims 1-21, 23-28, and 30 and the following remarks, are submitted as a full and complete response thereto.

Claims 1-21, 23-28, and 30 have been amended to improve clarity of the features recited therein. No new matter is being presented, and approval and entry are respectfully requested.

Claims 1-21 and 23-31 are pending and under consideration.

**REJECTION UNDER 35 U.S.C. § 103:**

*On page 2 of the Office Action, claims 1-2, 4, 6-8, 10-21, and 27-31 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Application No. 2002/065785 to Tsuda ("Tsuda") in view of U.S. Application No. 2003/0119501 to Kim ("Kim"). The Office Action took the position that Tsuda and Kim disclose all the aspects of independent claims 1, 4, 6, 14, 21, 27, 28, and 30 and related dependent claims. The rejection is traversed and reconsideration is requested.*

Independent claim 1, upon which claims 2, 3, and 24-26 are dependent, recites a method, including maintaining in a mobile communication system subscriber's location information, receiving a message from subscriber's user equipment, said message indicating that an address of a network node for certificate issuance and delivery

procedure in a visited network is requested by the subscriber's user equipment, and determining, in response to receiving the message, on the basis of the subscriber's location information, the address of the network node.

Independent claim 4, upon which claim 5 is dependent, recites a method, including receiving in a mobile communication system a message from subscriber's user equipment, the message indicating subscriber's location information in a visited network of the subscriber, and determining, in response to the message, on the basis of the subscriber's location information, an address of a network node in the visited network. The address of the network node is determined for certificate issuance and delivery procedure in the visited network.

Independent claim 6, upon which claims 7-13 and 20 are dependent, recites a method, including authenticating the subscriber, and transmitting during the subscriber authentication to the user equipment at least part of the information required for obtaining a certificate from a certificate issuance service in another network than a home network in a mobile communication system after the subscriber authentication.

Independent claim 14, upon which claims 15-19 are dependent, recites a method, including authenticating a subscriber, receiving, from subscriber's user equipment, a message relating to a certificate issuance service in another network than a home network in a mobile communication system, and transmitting, in response to the message, to the user equipment in a reply message at least part of information required for obtaining a certificate from the certificate issuance service .

Independent claim 21, upon which claims 23 is dependent, recites a mobile communication system, including at least user equipment, a home network for the user equipment, and a visited network comprising at least a network node for a certificate issuance and delivery procedure, said network node serving a certificate authority. An address of the network node is determined on the basis of location information of the user equipment in response to a sent message from the user equipment, said message indicating than an address of a network node for certificate issuance and delivery procedure in a visited network is requested by the user equipment.

Independent claim 27 recites a method, including authenticating a subscriber, and transmitting after the authentication via an authenticated channel to subscriber's user equipment at least part of information required for a certificate of issuance service in another network than a home network of the subscriber, said at least part of the information containing information required for obtaining a certificate from the certificate issuance service.

Independent claim 28, upon which claim 29 is dependent, recites a network node in a mobile communication system. The network node is in a home network of a subscriber and is configured to determine, in response to receiving a message indicating a request for a certificate issuance service from the subscriber, an address of another network node required for providing the certificate issuance service for the subscriber on the basis of subscriber's location information, said another network node being in another network than the home network.

Independent claim 30, upon which claim 31 is dependent, recites a user equipment in a mobile communication system. The user equipment is configured to receive at least part of information required for a certificate issuance service in a location network of the user equipment after the user equipment has been authenticated, said location network being a visited network and said at least part of the information containing information required for obtaining a certificate from the certificate issuance service in the visited network.

As will be discussed below, Tsuda and Kim fail to disclose or suggest the elements of any of the presently pending claims.

Tsuda generally describes a function for carrying out AAA processing and authentication and accounting processes carried out between AAA function (AAAM) on a mobile node and a visited network or the mobile node and a home network. See paragraph [0054]. When the mobile node is connected to the visited network, for example, the mobile node 1010 transmits a registration request to the home agent or the AAAH server according a Mobile IP protocol. See FIG. 1 and paragraphs [0061]-[0065].

Furthermore, Tsuda describes that a foreign agent sends periodically an advertisement including its own address (S101), and, thus, the mobile terminal receives the address without requesting. See, at least, FIGS. 10 and 11 of Tsuda. In Tsuda, when the mobile terminal notices that it has changed sub-network, it sends a registration request S102 to the foreign agent using the address the mobile terminal received in the

advertisement. Then, the mobile terminal is authenticated and keys changed, such keys being used to encrypt communication.

Kim generally describes how to create and update home zone information of a subscriber. FIG. 5 illustrates a base station system parameter database that stores every base station's inherent ID (Bts_id), location information of each base station, and so forth. See paragraph [0040]. The base stations located within the designated distance from the subscriber's residence regard or decide all sectors as a service sector. The exception range in Kim is a value necessary for establishing the designated distance through which the base stations made the decision aforementioned. Kim, thus, describes how to create and update home zone information of a subscriber. The base station ID in the home zone information remains the same regardless where the subscriber locates. Kim also provides to select subscribers under the influence, those subscribers living within a designated distance centering certain base stations.

However, a combination of Tsuda and Kim would not provide for all the recitations of independent claims 1, 4, 6, 14, 21, 27, 28, and 30. For instance, Tsuda does not teach or suggest, at least, "receiving a message from subscriber's user equipment, said message indicating that **an address of a network node** for certificate issuance and delivery procedure in a visited network is **requested** by the subscriber's user equipment," emphasis added, as recited in independent claim 1. Tsuda does not teach or suggest that a message is received from a user equipment requesting the address of a network element. Rather, Tsuda describes **sending** from a network node advertising messages containing

an address **without any request** from the user equipment. Similarly to Tsuda, Kim does not teach that the address of the network node is requested by the subscriber's user equipment. Kim is limited to providing a creation and update home zone information of a subscriber. Thus, a combination of Tsuda and Kim would fail to teach all the recitations of independent claim 1. For similar reasons, Tsuda and Kim do not teach or suggest, "determining, **in response to the message**, on the basis of the subscriber's location information, an address of a network node in the visited network, wherein the address of the network node is determined for certificate issuance and delivery procedure in the visited network," emphasis added, as recited in independent claim 4, "wherein an **address of the network node is determined** on the basis of location information of the user equipment **in response to a sent message** from the user equipment, said message indicating than an address of a network node for certificate issuance and delivery procedure in a visited network is requested by the user equipment," emphasis added, as recited in independent claim 21, and "wherein the network node is in a home network of a subscriber and is configured to determine, **in response to receiving a message indicating a request for a certificate issuance service from the subscriber, an address of another network node** required for providing the certificate issuance service for the subscriber on the basis of subscriber's location information," emphasis added, as recited in independent claim 28.

Regarding independent claim 6, paragraph [00186] of Tsuda describes that a certificate authority may be used during authentication of the subscriber. However,

Tsuda fails to teach or suggest that information on a certificate authority is sent during authentication to the user equipment, and that certificate issuance service is used after the authentication to obtain a certificate. Kim is devoid of any teaching or suggestion providing such features. Specifically, Tsuda and Kim fail to teach or suggest, at least, "transmitting during the subscriber authentication to the user equipment at least part of the information required for obtaining a certificate from a certificate issuance service in another network than a home network in a mobile communication system after the subscriber authentication," as recited in independent claim 6.

Regarding independent claim 14, paragraph [0069] of Tsuda generally describes accounting and disclosing how subscribers are billed. However, Tsuda fails to teach or suggest a message requesting information on how to obtain a certificate issuance service, and a message sending such information. Kim is devoid of any teaching or suggestion providing such features. Specifically, Tsuda and Kim fail to teach or suggest, at least, "transmitting, in response to the message, to the user equipment in a reply message at least part of information required for obtaining a certificate from the certificate issuance service," as recited in independent claim 14.

Regarding independent claims 27 and 30, paragraph [0035] of Tsuda fails to teach or suggest that information related to a certificate issuance service is sent after authentication. Kim is devoid of any teaching or suggestion providing such features. Specifically, Tsuda and Kim fail to teach or suggest, at least, "transmitting after the authentication via an authenticated channel to subscriber's user equipment at least part of

information required for a certificate of issuance service in another network than a home network of the subscriber, said at least part of the information containing information required for obtaining a certificate from the certificate issuance service," as recited in independent claim 27, and "wherein the user equipment is configured to receive at least part of information required for a certificate issuance service in a location network of the user equipment after the user equipment has been authenticated, said location network being a visited network and said at least part of the information containing information required for obtaining a certificate from the certificate issuance service in the visited network," as recited in independent claim 30.

Furthermore, Kim describes that the stored information does not depend on location information of the subscriber. Kim also does not teach or suggest determining, on the basis of the subscriber's location information, the address of the network node. The base station system parameter database storing location information of each base station alone does not teach or suggest a determination of an address of a network node.

In view of the descriptions of Tsuda and Kim, Kim does not cure the deficiencies of Tsuda. A combination of Tsuda and Kim would fail to teach or suggest all the recitations of the present claims. Instead, the combination of Tsuda and Kim would simply provide that mobile IP network could have home zone information and provide home zone services in a subnet using an address of AAAH. It would also include a database storing location information of each base station. However, there is no teaching or suggestion in the combination of Tsuda and Kim providing receiving a message from

subscriber's user equipment, said message indicating that an address of a network node for certificate issuance and delivery procedure in a visited network is requested by the subscriber's user equipment and transmitting after the authentication via an authenticated channel to subscriber's user equipment at least part of information required for a certificate of issuance service in another network than a home network of the subscriber.

Accordingly, in view of the foregoing, it is respectfully requested that independent claims 1, 4, 6, 14, 21, 27, 28, and 30 and related dependent claims be allowed.

*On page 6 of the Office Action, claims 3-5, 9, 22-23, and 25 were rejected under 35 U.S.C. § 103 as being unpatentable over Tsuda, Kim, and further in view of U.S. Publication No. 2002/0145561 to Sandhu et al. ("Sandhu"). The Office Action took the position that Tsuda, Kim, and Sandhu disclose all the aspects of claims 3-5, 9, 23, and 25. The rejection is traversed and reconsideration is requested.*

Dependent claims 3 and 35 depend from independent claim 1, dependent claim 5 depends from independent claim 4, dependent claim 9 depends from independent claim 6, and dependent claim 23 depends from independent claim 21. The arguments presented above supporting the patentability of independent claims 1, 4, 6, and 21 are incorporated herein.

Further, because the combination of Tsuda, Kim, and Sandhu must teach, individually or combined, all the recitations of the base claim and any intervening claims

of dependent claims 3 and 25, the arguments presented above supporting the patentability of independent claim 1 over Tsuda and Kim are incorporated herein.

As will be discussed below, Tsuda, Kim, and Sandhu fail to disclose or suggest the elements of any of the presently pending claims.

Sandhu generally describes a mobile unit regularly obtaining its location through a location-determining technology, such as GPS, and sending the location to a service provider computer. See abstract. The service provider computer maintains a database of the current location of all the mobile units, and provides the location of the mobile units to each of the mobile units.

However, Sandhu does not cure the deficiencies of Tsuda and Kim. Sandhu limits its description of using a plurality of mobile units to locate one another using multiple satellites (i.e., GPS). Similarly to Tsuda and Kim, Sandhu does not teach or suggest, receiving a message from subscriber's user equipment, said message indicating that an address of a network node for certificate issuance and delivery procedure in a visited network is requested by the subscriber's user equipment, or transmitting during the subscriber authentication to the user equipment at least part of the information required for obtaining a certificate from a certificate issuance service in another network than a home network in a mobile communication system after the subscriber authentication as in the present application.

In view of the description provided in the references, a combination of Tsuda, Kim, and Sandhu would describe that mobile IP networks could have home zone

information and provide home zone services in the subnet using the address of AAAH and that mobile user terminals could obtain location information from GPS and forward such information to a known address wherefrom location information may be delivered to indicate recipients. Accordingly, A combination of Tsuda, Kim, and Sandhu would fail to teach or suggest all the recitations of independent claims 1, 4, 6, and 21.

Accordingly, in view of the foregoing, it is respectfully requested that independent claims 1, 4, 6, and 21 and related dependent claims be allowed.

*On page 10 of the Office Action, claims 24-26 were rejected under 35 U.S.C. § 103 as being unpatentable over Tsuda, Kim, Sandhu, and further in view of U.S. Publication No. 2003/0092425 to Okazaki et al. ("Okazaki"). The Office Action took the position that Tsuda, Kim, Sandhu, and Okazaki disclose all the aspects of dependent claims 24 and 26 and related dependent claims. The rejection is traversed and reconsideration is requested.*

Dependent claims 24 and 26 depend from independent claim 1. Because the combination of Tsuda, Kim, Sandhu, and Okazaki must teach, individually or combined, all the recitations of the base claim and any intervening claims of dependent claims 24 and 26, the arguments presented above supporting the patentability of independent claim 1 over Tsuda, Kim, and Sandhu are incorporated herein.

Okazaki generally describes a method for security access to mobile IP network and selecting one mobility agent when the mobile node cannot authenticate any of the

Advertisements messages it received. See paragraph [0013]. Okazaki provides that a certificate is always requested from the home administrative server responsible for authentication of a mobile node, but Okazaki is silent as to teaching or suggesting receiving a message from subscriber's user equipment, said message indicating that an address of a network node for certificate issuance and delivery procedure in a visited network is requested by the subscriber's user equipment.

In view of the description provided in the references, a combination of Tsuda, Kim, Sandhu, and Okazaki would describe that mobile IP networks could have home zone information and provide home zone services in the subnet using the address of AAAH and that mobile user terminals could obtain location information from GPS and forward such information to a known address wherefrom location information may be delivered to indicate recipients, where a certificate is always requested from the home administrative server responsible for authentication of a mobile node. Accordingly, the combination of Tsuda, Kim, Sandhu, and Okazaki would fail to teach or suggest "receiving a message from subscriber's user equipment, said message indicating that an address of a network node for certificate issuance and delivery procedure in a visited network is requested by the subscriber's user equipment," as recited in independent claim 1.

Accordingly, in view of the foregoing, it is respectfully requested that independent claim 1 and related dependent claims 24 and 26 be allowed.

**CONCLUSION:**

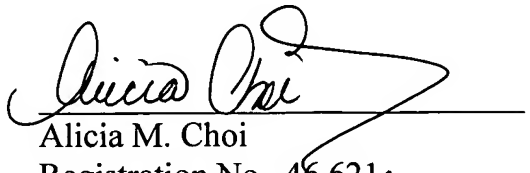
In view of the above, Applicant respectfully submits that the claimed invention recites subject matter which is neither disclosed nor suggested in the cited prior art. Applicant further submits that the subject matter is more than sufficient to render the claimed invention unobvious to a person of skill in the art. Applicant therefore respectfully requests that each of claims 1-21 and 23-31 be found allowable and this application passed to issue.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the applicant's undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the Applicant respectfully petitions for an appropriate extension of time.

Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,



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Enclosures: Petition for Extension of Time
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